DOCUMENT RESUME

ED 153 384 EC 110 333

AUTHOR Beck, Mitchell A.
TITLE A Follow-Up Study of Adults Who Were Clinically Diagnosed as Hyperkinetic in Childhood.
PUB DATE May 78
NOTE 15p.; Paper presented at the Annual International Convention, The Council for Exceptional Children (56th, Kansas City, Missouri, May 2-5, 1978, Session R2)

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS *Academic Achievement; Adults; *Behavior Problems; Exceptional Child Research; Followup Studies; *Hyperactivity; *Self Esteem; *Therapy; *Vocational Adjustment

ABSTRACT

A followup study involving 24 Ss was conducted to investigate the extent to which hyperkinesis, and its associate behavioral problems, persist into adulthood in children who have been clinically diagnosed as having the hyperkinetic behavioral syndrome. Five areas were considered: behavioral change, educational attainment, treatment, occupational structure, and self-esteem. Among findings were that Ss demonstrated a reduction of the primary behavioral symptoms of hyperkinesis that was evident at time of original diagnosis, however this reduction was not significant; that of the 10 Ss receiving quick and short-term intervention, all graduated from high school; and that 58% of the Ss repeated at least one school grade, yet 75% graduated from high school. (SBH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED153384

U S DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

A FOLLOWUP STUDY OF ADULTS WHO WERE CLINICALLY DIAGNOSED AS HYPERKINETIC IN CHILDHOOD

Mitchell A. Beck

Department of Special Education
University of Wisconsin, Oshkosh

EC110333

The hyperkinetic behavioral syndrome may be briefly described as a disorder which begins early in life, is more common in boys, and is manifested by symptom patterns of hyperactivity, impulsivity, distractibility, excitability and aggression. The unpredictable and often aggressive behavior has been observed to bring the child into frequent conflicts with his social environment (Laufer et.al., 1957; Cantwell, 1975; Weber, 1971; and Werry, 1968).

Early investigators of this syndrome tended to emphasize it was a time-limited condition that disappeared as the child grew older (Bradley, 1957; Laufer and Denhoff, 1957). However, while the symptoms of hyperkinesis may diminish with age, it now seems the initial optimism about this outcome of hyperkinetic children was unjustified. Cantwell (1975) has suggested that the evidence for indicators of progosis is limited and contradictory. He has stated:

> Prospective and retrospective follow-up studies of hyperkinetic children indicated that they are prone to develop significant psychiatric and social problems in adolescence and later life. Anti-social behavior, serious academic retardation, poor self-image and depression seem to be the most common outcomes of adolescences. Alcoholism, sociopathy, hysteria and possible psychosis seem to be likely psychiatric outcomes in adulthood. It is not been clearly demonstrated that treatment of any type significantly affect the long-term outcome of the hyperkinetic child.

There is currently very little information available to substantiate the prognosis regarding hyperkinesis. Research in this area has dealt with diagnosis, suggestions for treatment, or short-term follow-up studies; beyond this, research has been minimal. The long-term effects of hyperkinesis upon children and the specific effects that may extend into adulthood must be investigated more extensively if we are to add any clarity to our present understanding of this disability.

The major purpose of this study is to investigate the extent to which hyperkinesis, and its associate behavioral problems, persist into adulthood in children who have been clinically diagnosed as having the hyperkinetic behavioral syndrome. This investigator will also examine ancillary areas of: educational attainment, adult psychopathology, self-esteem and certain adaptive characteristics. Such information should help clarify our understanding of the long-term effects of hyperkinesis upon the lives of individuals.

METHOD

SUBJECT SELECTION

Initially, 118 subjects were identified as having the hyperkinetic behevioral syndrome. This population was selected from the case records at Hawthorn Center. This is a mental health facility of the State of Michigan providing comprehensive services for children and adolescents. Because of the length of time from diagnosis to time of follow-up (13.7 years), this researcher could only locate 24 adults (mean age 22.4 years) to participate in this study. The subjects were considered to be a representative sample of individuals fitting the definition of hyperkinesis discussed previously. Other criteria used in selection were: a full scale I.Q. of 85 or greater as measured on the Wechsler Intelligence Scale for Children; were between [illegible]

Intelligence Scale for Children: were between the ages of 20 to 26;no major brain damage or disfunction such as epilepsy or cerebral palsy. There was no evidence of psychosis or severe character disorder. It was also required that subjects be out of high school at the time of the follow-up, having graduated or officially withdrawn. Both males and females were included in the study, even though the male/female ratio in the sample was 6:1, it was felt that this ratio would not detract from the findings.

The diagnosis of the hyperkinetic behavioral syndrome at Hawthorn Center was arrived at through the multi-discipline efforts including psychologists, social workers, and psychiatrists. Pertinent information was evaluated and included school records, family and developmental history, and psychological test data. Additional information was obtained through psychiatric interviews with the child and his family.

To be included in the study, a subject had to be diagnosed as being hyperkinetic by at least two of the professional disciplines participating in the evaluation. In addition, complete test data and behavioral observation relative to the diagnosis had to be present in the case record. Because the sample population under investigation in this study is quite small (N=24), it must be understood that the research is primarily of a clinical and qualitative nature, and its implimentation to a larger population is limited.

Evaluations Performed

All children had initially received the following pre and post measurements.

1. Target symptoms: hyperactivity, distractivity, excitability, impulsivity, and aggression as measured by a Hyperkinetic Behavioral Checklist (consensually developed by the professional staff at Hawthorn Center).

2. The Coopersmith Self-Esteem Inventory

3. A Structured Interview

The follow-up interviews with the investigator lasted a total of two and one half hours per individual and were spread over a period of several months. The interviews were held at either the hospital or in the home of the subject. The interviews followed a structured format. These areas are summarized below:

I. Educational. Information related to educational experiences, attitudes, attainments, and special assistance.

II. Employment. Problems related to job, type of position currently held.

III. Medication. Duration of, and effectiveness of the medication.

IV. Informal and formal testing.

AREAS OF INVESTIGATION

This present paper discusses five types of questions:

1. Behavioral Change: does hyperkinetic behavior remit at puberty as suggested by the research, or does it become the presursor to adult psychopathology?
2. Educational Attainment: does the hyperkinetic child continue to have educational problems through adolescence and into adulthood?
3. Treatment: does therapy, coupled with remedial education, for varying lengths of time influence outcome?
4. Occupational Structure: does the hyperkinetic child continue to have problems, in the job market, as he becomes an adult?
5. Self-Esteem: as the hyperkinetic child matures, does his self-concept change?

Results

Behavioral Change:

Table I demonstrates that seven of the nine primary target symptoms diminish with age. Statistically, only four of the primary target symptoms demonstrated any significant change at the .05 level. This was noted in the areas of Language Problems, Relationship Problems, Problems with Sleep and in Aggression. Although the reduction was statistically significant, it was not significant enough to be consistent with most of the research cited in this area. According to Cantwell (1972), the hyperkinetic syndrome does not remit at puberty but is redirected to a less gross and disturbing manner. Rie (1975), in his research, also found a minimal reduction of the hyperkinetic symptoms at puberty and an increase in what he called "secondary symptoms".

This research also found that hyperkinesis does not remit spontaneously at puberty as cited in previous research (Laufer and Denhoff, 1957; Butler, 1968; Renshaw, 1974: and Douglas, 1972), but the behavior seemed to be redirected into less gross and disturbing behaviors. These "secondary symptoms", according to Cantwell (1972), and Rie (1975), may be the precursor to latter adult psychopathology. The "secondary symptoms" are summarized in Table 2.

Table I

Comparison of Primary Target Symptoms of

Subjects at Time of Diagnosis and at Follow-Up

Symptoms	Frequency at Diagnosis	Frequency at Follow-Up	X^2
Impulsive	15	19	.000
Difficulty in Learning	11	9	3.27
Language Problem	16	6	7.2*
Tearful	14	12	.000
Distractible	14	10	2.33
Relationship Problems	16	3	8.89*
Problems with Sleep	14	11	4.26*
Restlessness	11	16	3.26
Aggressive	13	4	8.47*
Total	N = 124	99	

*Significant at the .05 level

Table 2

Secondary Symptoms Developed by

Subjects at Follow-Up

Symptoms	At Diagnosis	# At Follow-Up	N = 24
Picks at Things	7	18	
Wants to Run Things	2	15	
Daydreams	5	18	
Feelings Easily Hurt	2	13	
Quick Mood Changes	-	15	
Inattentive	4	14	

Treatment:

Two types of treatment were enlisted: (a) psychiatric supportive treatment* and (b) remedial.

Psychiatric:

Thirteen of the subjects received some psychiatric help during their school years. From the responses of the subjects during the interview sessions, it appeared that the majority of the subjects saw either a crisis teacher or occasionally a social worker. Unfortunately, the patients recollections were vague about this, (and the school records were incomplete to insure any type of generalization as to the effectiveness of psychiatric help.)

Remedial Therapy:

Ten of the subjects received some form of remedial help during their school years (tutoring, resource room, reading, speech, residential facility). This intervention lasted approximately one year or less, and all ten of these children had graduated from high school. This lends support to the notion that early intervention helps to foster a positive school feeling. Twelve children received remedial therapy which continued three years and beyond. Only six of this group graduated from high school. Two students received no remedial help at all, and both of these graduated from high school.

Educational Status:

Fourteen of the subjects had repeated one or more grades sometime during their pre-high school years. Ten of these subjects graduated from high school. When asked their feelings about repeating a grade and its effect on them, the response was surprising, in so much that seven of the subjects felt that being kept back one year gave them the opportunity to catch up with their classmates, both academically and socially. From this, for the group, it might appear to be a positive relationship between grade repetition and school achievement.

*Psychiatric here includes many different forms of supportive help, e.g. crisis teacher, social worker, psychologist, psychiatrist, etc.

Eighteen of the subjects finished high school, with three of these participating in some post-high school junior college training. This is 25% of the subjects, but it's 19% lower than the average for students graduating from the tri-county area of Michigan (Detroit, and surrounding suburbs). Six individuals or 25% of the group did not finish high school and this is considerably higher than the 5.6% as stated by the Michigan Department of Education for the tri-county area.

At the time of the follow-up, subjects were administered the Gates-McKellop Oral Reading Test and the Group Diagnostic Reading Aptitude and Achievement Tests - Math section. The mean reading score for the group, at the time of follow-up was 6.8. When compared to the average reading level for adults (approximately grade 10.5) the amount of retardation is evident. Arithmetic achievement was slightly higher, with a mean score of 7.1. This is quite common among hyperkinetic children and adults.

The occupational status for the subjects was determined by their employment records during a period extending from the winter of 1976, through the summer of 1976. Table #3 summarizes the distribution of the various job categories. Sixteen of the subjects fall within the first two categories (unemployed and unskilled labor). It must be mentioned that because of the young age of the population (mean age 22.4 years), opportunities for advancement into the other categories is still limited . (Please see Table #3).

Table 3

Subject Frequency Distribution

on Occupational Rating Scale

Occupation Scale	Frequency	Percent
Unemployed	4	18
Unskilled Labor	12	55
Semi-Skilled Labor	6	27
Skilled Worker, Training	-	-
Managerial-Small Business	-	-
Professional	-	-
	N = 22*	

*Two subjects were full-time students in college at time of follow-up.

Self-Esteem

At time of diagnosis, the Coopersmith Self-Esteem Inventory was administered to the group. It was found that 19 subjects (79%) had poor self-images, and the remaining five had only "fair" self-concepts. None of the subjects, at diagnosis, had a higher than "fair" self-image. At the time of follow-up, it was found that fourteen of the adults still had a poor self-concept. From the interview, it was found that sexual relationships had been influenced and limited in many instances because of this poor self-image. Unmarried subjects (18) acknowledged they were reluctant to date, or to join in any group social functions. It was also found, by this researcher, that 17 of the 18 unmarried subjects (94%) currently live with their parents. This is interesting when compared to the Department of Labor statistics for the tri-county area of Michigan (Detroit, and its surrounding suburbs), which shows that only 6.5% of that age group live at home on a full-time basis.

Discussion

The subjects in this study demonstrated a reduction of the primary behavioral symptoms of hyperkinesis that was evident at time of original diagnosis. This reduction was not significant enough to be consistent with most of the past research in this area. The writer tends to agree with Cantwell (1972) that the hyperkinetic syndrome does not remit at puberty, but it is redirected to a less gross and disturbing behavior. At the time of the study, the author observed no signs of any adult psychopathology. It must be remembered that this sample population has not reached the age of maximum risk for psychopathology; these "secondary symptoms" still may be the precursor to later psychopathology.

The findings of this study have major implications for the field of education. It has been stated in other studies (Weiss et.al., 1971; Mende et.al., 1971; and Mendelson et.al., 1971) that academic problems continue to persist into adolescence in their study populations of hyperkinetic children. This writer found that learning difficulties continued to persist into early adulthood.

It was also found that of the ten subjects in the study receiving quick and short-term intervention, all graduated from high school. This lends support to the notion that quick intervention may help foster a positive school attitude. Of the twelve who received remedial therapy for three years or longer, only six graduated from high school. This would indicate there might be an optimal length of time that remedial therapy can be effective.

Eighteen of the individuals (75%) in this study graduated from high school. This is approximately 19% lower than the average for the tri-county area of Michigan. This low figure probably is because of the sustained academic and social difference and the low self-esteem these children had during

their school years. The dropout rate of 25% (six subjects) of the study group, is almost five times higher than the average for the tri-county area of Michigan.

The attitude the subjects had concerning grade repetition was one of the surprising findings of the study. It was mentioned earlier that 58% of this group repeated at least one school grade - yet, 75% of this group graduated from high school. This would seem to suggest that for this particular group of individuals, repeating a grade had a positive influence on their educational outcome. Denoff (1973) and Huessy (1974) found similar results in their studies of hyperkinetic children. In this study, the subjects' positive experience does, in fact, result from repeating a grade. We will have to begin rethinking our philosophy about grade repetition. It is possible that, for hyperkinetic children, practice of grade repetition may allow the child to catch up socially and academically with his peers. Occupational and social ambitions had to be compromised by the subjects of this study because of their continued difficulties. This may have resulted from several factors: (1) the low level of academic achievement of the sample (6.8 level in reading and a 7.1 level in mathematics); (2) the low self-esteem still evidenced in the sample group - seventeen adults still living at home full time; and (3) the low job status they currently have. Finally, the high percentage of unmarried adults lends credence to the possibility that, as adults, these individuals still demonstrate social problems. It was mentioned numerous times by the subjects that they did not date and were afraid to get involved in peer oriented social situations. The findings in this research suggest more optimism than the findings reported by others conducting longitudinal studies of the same type of subjects.

However, some evidence is still present to suggest that this population may still be at risk. That this study was limited to 24 subjects, no global statements can be made. Replications of this study may faster further evidence to support global statements.

References

Bradley, C. Characteristics and management of children with behavioral problems associated with organic brain damage. Clinical Pediatrics of North America, 1957 4: 1049-1060.

Cantwell, D. Parents of hyperactive children: cause or effect. Medical Insight, 1973, Dec., 25-28.

_____ Psychiatric illness in the families of hyperactive children. Archives of General Psychiatry, 1972, 27, 414-417.

_____ The Hyperactive Child - Diagnosis, Management, Current Research. New York: John Weley and Sons, 1975.

Denoff, E. To mediate to debate or to validate. Journal of Learning Disabilities, 1971, 4, 167-469.

Grinspoon, L. and Singer, S. Amphetamines in the treatment of hyperkinetic children. harvard Educational Review, 1973, 43, 515-555.

Huessy, H. The adult hyperkinetic. American Journal of Psychiatry, 1974, 131: 6, 724-725.

Laufer, M.W. & Denoff, E. & Solomons, Hyperkinetic impulse disorder in children's behavior problems. Psychosomatic Medicine, 1957, 19, 38-49.

Mendelson, W., Johnson, N., & Stewart, M.A. Hyperactive children as teenagers: a follow-up study. Journal of Nervous Mental Disorders, 1971, 53, 273-279.

Minde, K. et.al. The hyperactive child in elementary school: a five-year controlled follow-up. Exceptional Children, 1971, 50, 215-221.

Stewart, et.al. The hyperactive child syndrome. American Journal of Orthopsychiatry, 1966, 38, 861-867.

Weiss, et.al. Hyperactive children - five years. Archives of General Psychiatry, 1971, 24, 409-414.

Wender, P.H. Minimal Brain Dysfunction in Children. New York: John Weley and Sons, 1971.

Werry, J. S. Studies on the hyperactive child: IV. An emirical analysis of the minimal brain dysfunction syndrome. Archives of General Psychiatry, 1968, 19, 9-16.